



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



16147



## INSTRUMENT APPROACH PROCEDURE CHARTS

### IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

#### Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are textually described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned an ODP, SID, or radar vector as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting their IFR clearance.

At some locations where an ODP has been established, a diverse vector area (DVA) may be created to allow radar vectors to be used in lieu of an ODP. DVA information will state that headings will be as assigned by ATC and climb gradients, when applicable, will be published immediately following the specified departure procedure.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refer to appropriate service directives.

NAME	TAKEOFF MINIMUMS	NAME	TAKEOFF MINIMUMS
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#### APPLE VALLEY, CA

##### APPLE VALLEY (APV)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 00167 (FAA)

TAKEOFF MINIMUMS: **Rwy 36**, 300-1 or std. with a  
min. climb gradient of 340' per NM to 5800.

**Rwys 8,18,26**, NA.

DEPARTURE PROCEDURE: Use EXCON ONE

RNAV DEPARTURE. **Rwys 8,18,26**, NA.

#### AVALON, CA

##### CATALINA (AVX)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

DEPARTURE PROCEDURE: **Rwys 4,22**, climb  
straight ahead to 2300 then proceed on course.

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## BAKERSFIELD, CA

### BAKERSFIELD MUNI (L45)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2 14037 (FAA)

TAKEOFF MINIMUMS: **Rwy 34**, 400-1¼ or std. with a min. climb of 555' per NM to 900.

DEPARTURE PROCEDURE: **Rwy 16**, climbing right turn direct EHF VORTAC, thence...

**Rwy 34**, climbing left turn direct EHF VORTAC, thence...

... Aircraft departing EHF VORTAC R-180 CW R-360 climb on course, aircraft departing EHF VORTAC R-001 CW R-100 continue climb in EHF VORTAC holding pattern (hold NW, right turns, 144° inbound) to cross EHF VORTAC at or above 5200 then proceed on course, aircraft departing EHF VORTAC R-101 CW R-179 continue climb in EHF VORTAC holding pattern (hold NW, right turns, 144° inbound) to cross EHF VORTAC at or above 4100 then proceed on course.

NOTE: **Rwy 16**, light pole 168' from DER, 498' left of centerline, 26' AGL/400' MSL. Tree 395' from DER, 491' left of centerline, 40' AGL/400' MSL. Powerlines beginning 546' from DER, 608' right of centerline, 120' AGL/474' MSL. Pole 644' from DER, 474' left of centerline, 30' AGL/403' MSL. Trees beginning 1603' from DER, 196' right of centerline, up to 40' AGL/453' MSL. Obstruction light on transmission tower 2464' from DER, 780' left of centerline, 106' AGL/477' MSL. Catenary 2486' from DER, 484' left of centerline, 106' AGL/477' MSL. Catenary 2529' from DER, 725' right of centerline, 111' AGL/483' MSL. Obstruction light on transmission tower 2539' from DER, 214' right of centerline, 107' AGL/478' MSL. Catenary 2540' from DER, 482' right of centerline, 111' AGL/482' MSL. **Rwy 34**, trees beginning 604' from DER, 341' right of centerline, 40' AGL/419' MSL. Tower 5100' from DER, 1646' right of centerline, 266' AGL/656' MSL. Vehicles on road 764' from DER, 499' left of centerline, up to 15' AGL/399' MSL. Hanger 372' from DER, 545' left of centerline, 20' AGL/404' MSL.

## MEADOWS FIELD (BFL)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 3 16147 (FAA)

DEPARTURE PROCEDURE: **All aircraft** climbing right turn direct EHF VORTAC. Aircraft departing EHF R-180 CW R-350 climb on course. All others continue climb northwest bound via EHF R-324, then climbing left turn to cross EHF VORTAC at or above: EHF R-110 CW R-179 3000; EHF R-351 CW R-109 4000.

NOTE: **Rwy 12L**, trees beginning 2221' from DER, 684' left of centerline, up to 72' AGL/546' MSL. Ground 146' from DER, 525' left of centerline, 479' MSL. **Rwy 12R**, tree 2612' from DER, 1158' left of centerline, 69' AGL/533' MSL. Trees beginning 456' from DER, 575' right of centerline, up to 46' AGL/510' MSL. Fence 14' from DER, 215' right of centerline, 4' AGL/466' MSL. **Rwy 30R**, pole 1248' from DER, 113' left of centerline, 31' AGL/543' MSL. Transmission tower 3632' from DER, 1097' left of centerline, 94' AGL/602' MSL. Poles beginning 2297' from DER, 925' right of centerline, up to 36' AGL/577' MSL. Pump 529' from DER, 538' right of centerline, 5' AGL/523' MSL. Building 373' from DER, 257' right of centerline, 10' AGL/524' MSL. Towers beginning 4350' from DER, 499' right of centerline, up to 110' AGL/650' MSL. NAVAID 388' from DER, 266' right of centerline, 21' AGL/535' MSL. Tree 3252' from DER, 1072' right of centerline, 101' AGL/610' MSL.

## BIG BEAR CITY, CA

### BIG BEAR CITY (L35)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 00111 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, 1200-2 or std. with a min. climb of 282' per NM to 8000. **Rwy 26**, NA.

DEPARTURE PROCEDURE: Use OKACO RNAV DEPARTURE. **Rwy 26**, NA.

## BLYTHE, CA

### BLYTHE (BLH)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1A 13234 (FAA)

TAKEOFF MINIMUMS: **Rwy 26**, 600-2½ or std. with a min. climb of 348' per NM to 1200.

DEPARTURE PROCEDURE: **Rwys 8,17,35**, turn right.

**Rwy 26**, turn left, climb to 1500 via heading 180° and BLH R-120, then climbing left turn direct BLH VORTAC, MCA 2000.

NOTE: **Rwy 26**, tower 2.4 NM from DER, 991' left of centerline, 159' AGL/957' MSL.

## BORREGO SPRINGS, CA

### BORREGO VALLEY (L08)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2 08101 (FAA) DEPARTURE PROCEDURE: Use ZUNGU DEPARTURE (RNAV).

## BRAWLEY, CA

### BRAWLEY MUNI (BWC)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 89208 (FAA)

TAKEOFF MINIMUMS: **Rwy 26**, NA.

DEPARTURE PROCEDURE: **Rwy 8**, turn right. Climb to 3000 via IPL R-009 to IPL VORTAC, then climb on course.

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## BURBANK, CA

### BOB HOPE (BUR)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 11209 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, std. w/min. climb of 410' per NM to 5000. **Rwy 15**, std. w/min. climb of 335' per NM to 5000. **Rwy 26**, std. w/min. climb of 325' per NM to 5000. **Rwy 33**, std. w/min. climb of 550' per NM to 5000' or 600-2¼ w/min. climb of 300' per NM to 5000.

DEPARTURE PROCEDURE: **Rwys 8, 15**, climbing right turn direct VNY VOR/DME. **Rwy 26**, climb direct VNY VOR/DME. **Rwy 33**, Climbing left turn direct VNY VOR/DME.

All aircraft continue climb in VNY holding pattern (SE, left turns, 295° inbound) to cross VNY VOR/DME at or above 5100, then westbound on V326 to GINNA or eastbound on V186 to DARTS.

NOTE: **Rwy 8**, multiple trees, poles, and buildings beginning 124' from DER, 42' right of centerline, up to 65' AGL/745' MSL. Multiple trees, buildings and poles beginning 278' from DER, 73' left of centerline, up to 56' AGL/746' MSL. **Rwy 15**, multiple trees, buildings, poles, and blast fence beginning 50' from DER, 2' right of centerline, up to 65' AGL/762' MSL. Multiple trees, buildings, poles, blast fence beginning 185' from DER, 53' left of centerline, up to 108' AGL/777' MSL. **Rwy 26**, multiple trees, poles, transmission towers, buildings, and roads, and terrain beginning 26' from DER, 4' right of centerline, up to 145' AGL/731' MSL. Multiple trees, poles, transmission towers, railroad, and buildings beginning 302' from DER, 437' left of centerline, up to 117' AGL/846' MSL. **Rwy 33**, multiple trees, poles, terrain, buildings, road beginning 33' from DER, 30' right of centerline, up to 100' AGL/1333' MSL. Multiple trees, poles, buildings, antenna, railroad, and blast fence beginning 97' from DER, 11' left of centerline, up to 50' AGL/878' MSL.

#### DIVERSE VECTOR AREA (RADAR VECTORS) ORIG 16147 (FAA)

**Rwy 8**, heading as assigned by ATC; requires minimum climb of 420' per NM to 2500. **Rwy 15**, heading as assigned by ATC; requires minimum climb of 340' per NM to 2100. **Rwy 26**, heading as assigned by ATC; requires minimum climb of 380' per NM to 4800.

**Rwy 33**, heading as assigned by ATC; requires minimum climb of 460' per NM to 4900.

## CALIFORNIA CITY, CA

### CALIFORNIA CITY MUNI (L71)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 05076 (FAA)

DEPARTURE PROCEDURE: Use CALIFORNIA CITY (RNAV) DEPARTURE.

## CALIPATRIA, CA

### CLIFF HATFIELD MEMORIAL (CLR)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 03023 (FAA)

DEPARTURE PROCEDURE: **Rwy 8**, climb runway heading to 400, then climbing right turn to 3000 via heading 200° and IPL R-336 to IPL VORTAC. **Rwy 26**, climb runway heading to 400, then climbing left turn to 3000 via IPL R-336 to IPL VORTAC.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



## CAMARILLO, CA

### CAMARILLO (CMA)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

TAKEOFF MINIMUMS: **Rwy 8**, 1100-2 or std. with a min. climb of 250' per NM to 1500.

DEPARTURE PROCEDURE: **Rwy 8**, climb to 2500 via CMA R-061. **Rwy 26**, climbing right turn to 2500 via CMA R-265. **All aircraft** climbing left turn direct CMA VOR/DME. Continue climb on course to assigned altitude.

## CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)

### OCEANSIDE, CA

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

14149

DEPARTURE PROCEDURE: **Rwys 3,21**, Diverse departures not authorized.

TAKE-OFF OBSTACLES: **Rwy 3**, terrain 4103' from DER, 1600' left of centerline, 183' MSL. Terrain 4152' from DER, 1551' left of centerline, 187' MSL. Numerous palm trees beginning 2088' from DER, 572' right of centerline, up to 155' MSL. **Rwy 21**, terrain 3723' from DER, 1497' left of centerline, 184' MSL. Terrain 3533' from DER, 1446' left of centerline, 166' MSL.

## CARLSBAD, CA

### MC CLELLAN-PALOMAR (CRQ)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 93315 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, 1400-2 or std. with a min. climb of 260' per NM to 2100.

DEPARTURE PROCEDURE: **Rwy 6**, climbing left turn to 3100 heading 245°. **Rwy 24**, climb runway heading to 2800. **All aircraft** climb on course.

## CHINA LAKE NAWS (ARMITAGE FLD) (KNID)

### RIDGECREST, CA

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

10266

Diverse departures not authorized, use published departure.

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## CHINO, CA

### CHINO (CNO)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 00335 (FAA)

TAKEOFF MINIMUMS: **Rwy 3**, std. with a min. climb of 270' per NM to 4800. **Rwys 8L/R**, std. with a min. climb of 270' per NM to 4800. **Rwy 21**, Cat A/B std. with a min climb of of 290' per NM to 4800, Cat C/D std. with a min. climb of 400' per NM 4800. **Rwys 26L/R**, Cat A/B std. with a min. climb of 270' per NM to 4800, Cat C/D std. with a min. climb of 410' per NM to 4800.

DEPARTURE PROCEDURE: **Rwys 3, 8L/R**, climbing right turn direct PDZ VORTAC. **Rwys 21, 26L/R**, climbing left turn direct PDZ VORTAC. **All aircraft** climb in PDZ VORTAC holding pattern (Hold E, right turns, 258° inbound) to the appropriate MEA.

NOTE: 108° AGL trees 1200' from DER 3, 600' left of centerline.

### DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 15288 (FAA)

**Rwy 3**, heading as assigned by ATC; requires minimum climb of 250' per NM to 4300. **Rwys 8L, 8R**, heading as assigned by ATC; requires minimum climb of 370' per NM to 4100. **Rwy 21**, heading as assigned by ATC; requires minimum climb of 320' per NM to 1800. **Rwys 26L, 26R**, heading as assigned by ATC; requires minimum climb of 270' per NM to 2100.

## CORONA, CA

### CORONA MUNI (AJO)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 94146 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, 1000-2 or std. with a min. climb of 310' per NM to 1700. **Rwy 25**, 600-2 or std. with a min. climb of 280' per NM to 1200.

DEPARTURE PROCEDURE: **Rwy 7**, climbing left turn. **Rwy 25**, climbing right turn. **All aircraft** continue climb direct to PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ VORTAC holding pattern (Hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-141 CW R-230 4000, R-281 CW R-090 6700.

## DAGGETT, CA

### BARSTOW-DAGGETT (DAG)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 10210 (FAA)

DEPARTURE PROCEDURE: Use DAGGETT DEPARTURE.

## DELANO, CA

### DELANO MUNI (DLO)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3A 08129 (FAA)

TAKEOFF MINIMUMS: **Rwy 32**, 400-1 or std. with a min. climb rate of 390' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 14**, Climb via heading 140° and EHF VORTAC R-324 to 3000 before proceeding on course. **Rwy 32**, climb via heading 320° and EHF VORTAC R-324 to 3000 before proceeding on course.

NOTE: 65' AGL tree 600' from DER, 500' left of centerline runway 14.

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## EDWARDS AF AUX NORTH BASE (9L2)

### EDWARDS, CA

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

**Rwy 6-24**, climb on course, cross 15 NM from ARP at or above 4500.

## EDWARDS AFB (KEDW)

### EDWARDS, CA

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

12012

**Rwys 4L/R**, Radar Required, Climb 340 ft/NM to 5500, track inbound on EDW R-223 to EDW VORTAC, then out EDW R-043. Climb as instructed, expect radar vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500. **Rwys 22L/R**, Radar and DME Required. CAT ABC track outbound EDW R-223. At 12 DME turn right heading 020°, intercept EDW R-247 to EDW VORTAC. Climb as instructed, expect radar vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500. CAT DE track outbound EDW R-223. At 12 DME turn right, intercept EDW R-247 to EDW VORTAC. Climb as instructed, expect radar vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500.

## EL CENTRO NAF (KNJK)

### EL CENTRO, CA

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

13346

TAKE-OFF MINIMUMS: **For Climb in Visual**

**Conditions: Rwys 8, 12, 26**, 2500-3. **Rwy 30**, 2300-3.

DEPARTURE PROCEDURE: **Rwy 12**, Cross DER at least 35' AGL/-8' MSL. **For Climb in Visual** **Conditions: Rwys 8, 12, 26**, Cross El Centro airport at or above 2300 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 30**, Cross El Centro airport at or above 2100 before proceeding on course. When executing VCOA, notify ATC prior to departure.

TAKE-OFF OBSTACLES: **Rwy 12**, Terrain - 36' MSL, 254' from DER, 568' right of centerline. Terrain - 36' MSL, 119' from DER, 217' right of centerline. Terrain - 36' MSL, 85' from DER, 178' left of centerline. Terrain - 36' MSL, 0' from DER, 106' left of centerline. Pole - 3' MSL, 1531' from DER, 884' right of centerline. Pylon 41' AGL/-3' MSL, 1532' from DER, 884' right of centerline. **Rwy 26**, Terrain - 44' MSL, 110' from DER, 529' left of centerline. **Rwy 30**, Electrical box 4' AGL/-45' MSL, 176' from DER, 140' left of centerline.

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## EL MONTE, CA

### EL MONTE (EMT)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 12208 (FAA)

TAKEOFF MINIMUMS: **Rwy 1**, std. w/min. climb of 275' per NM to 1800.DEPARTURE PROCEDURE: **Rwy 1**, climb heading 011° to 700° then climbing right turn on heading 128° and on PDZ R-278 to PDZ VORTAC thence...**Rwy 19**, climb heading 191° to 1500 then climbing left turn on heading 068° and on PDZ R-278 to PDZ VORTAC thence...

... Aircraft departing PDZ R-078 CW R-292 climb on course. All others continue climb in PDZ VORTAC holding pattern (hold NE, RT, 210° inbound) to cross PDZ VORTAC at or above: MEA for route of flight.

NOTE: **Rwy 1**, Sign 18' from DER, 124' right of centerline, 10' AGL/300' MSL. Building 99' from DER, 269' left of centerline, 44' AGL/334' MSL. Hangar 273' from DER, 299' right of centerline, 20' AGL/310' MSL. Multiple light standards and vehicles on road beginning 525' from DER, left and right of centerline, up to 44' AGL/344' MSL. Trees beginning 610' from DER, left and right of centerline, up to 94' AGL/404' MSL. Pole 1698' from DER, on centerline, 65' AGL/365' MSL.**Rwy 19**, sign 16' from DER, 129' left of centerline, 15' AGL/285' MSL. Multiple poles and light standards beginning 377' from DER, left and right of centerline, up to 100' AGL/358' MSL. Trees beginning 74' from DER, right and left of centerline, up to 68' AGL/348' MSL.

## FALLBROOK, CA

### FALLBROOK COMMUNITY AIRPARK (L18)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 98057 (FAA)

TAKEOFF MINIMUMS: **Rwy 36**, CAT A,B, 1700-2 or std. with a min. climb of 340' per NM to 5000.DEPARTURE PROCEDURE: **Rwy 18**, climb runway heading to 1200, then climbing left turn via heading 160° to join V208-458. Aircraft westbound proceed on course. Aircraft eastbound V208-458 proceed to VISTA Int and climb in holding pattern (E, left turns, 263° inbound) to 5000 before proceeding on course. **Rwy 36**, climb runway heading to 1500, then climbing right turn to intercept OCN VORTAC R-027 to TANNR Int before proceeding on course.

## FULLERTON, CA

### FULLERTON MUNI (FUL)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 12124 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, std. w/min. climb of 280' per NM to 600.DEPARTURE PROCEDURE: **Rwy 6**, climbing right turn to 2300 direct SLI VORTAC, thence ...**Rwy 24**, climbing left turn to 2300 direct SLI VORTAC, thence ...

... Climb in holding pattern (hold South, left turns, 351° inbound) until at or above MEA for direction of flight before proceeding course.

NOTE: **Rwy 6**, windsock 58' from DER, 189' right of centerline, 12' AGL/109' MSL. Obstruction light on pole 109' from DER, 116' left of centerline, 23' AGL/118' MSL. Multiple poles beginning 115' from DER, left and right of centerline, up to 40' AGL/198' MSL. Trains 221' from DER, left and right of centerline, up to 23' AGL/144' MSL. Light standard 486' from DER, 133' right of centerline, 20' AGL/123' MSL. Hopper on building 977' from DER, 468' left of centerline, 36' AGL/132' MSL. Obstruction light on building 1002' from DER, 31' right of centerline, 25' AGL/128' MSL. Light pole 1247' from DER, 143' left of centerline, 35' AGL/131' MSL. Tree 1462' from DER, 35' left of centerline, 75' AGL/168' MSL. Obstacle light on silo 1620' from DER, 317' right of centerline, 50' AGL/146' MSL. Building 3206' from DER, 820' right of centerline, 112' AGL/217' MSL. Obstruction light on building 3390' from DER, 913' right of centerline, 112' AGL/217' MSL. Tower 6093' from DER, 1936' left of centerline, 94' AGL/267' MSL. **Rwy 24**, vehicles on roadway 82' from DER, left and right of centerline, up to 15' AGL/114' MSL. Light standard 85' from DER, 260' right of centerline, 25' AGL/110' MSL. Light standard 217' from DER, 320' left of centerline, 104' AGL/122' MSL. Antenna on building 272' from DER, 227' left of centerline, 31' AGL/116' MSL. Trees beginning 352' from DER, 227' right of centerline, up to 60' AGL/155' MSL. Pole 395' from DER, 279' left of centerline, 35' AGL/123' MSL. Obstruction light on navaid 399' from DER, on centerline, 5' AGL/1 03' MSL. Poles beginning 1335' from DER, right and left of centerline, up to 25' AGL/129' MSL. Tree 1377' from DER, 159' left of centerline, 50' AGL/147' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****HAWTHORNE, CA**

JACK NORTHROP FIELD/HAWTHORNE  
MUNI (HHR)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 4 15288 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, 300-1¼ or std. w/min.  
climb of 363' per NM to 500. **Rwy 25**, 400-3 or std. w/  
min. climb of 285' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 7**, climbing right turn  
to 3000 heading 220° and the LAX VORTAC R-170 to  
LIMBO Int. **Rwy 25**, climbing left turn to 3000 heading  
205° and the LAX VORTAC R-170 to LIMBO Int.

NOTE: **Rwy 7**, tree 115' from DER, 95' right of  
centerline, 32' AGL/77' MSL. Tree 5378' from DER,  
483' right of centerline, 90' AGL/245' MSL. Trees  
beginning 4062' from DER, 293' right of centerline, up  
to 86' AGL/210' MSL. Tree 4984' from DER, 763' right  
of centerline, 81' AGL/220' MSL. Tree 5163' from DER,  
90' right of centerline, 59' AGL/218' MSL. Tree 2967'  
from DER, 840' right of centerline, 78' AGL/157' MSL.  
Pole 1 NM from DER, 397' right of centerline, 58'  
AGL/237' MSL. Pole 3187' from DER, 172' right of  
centerline, 62' AGL/160' MSL. Pole 2794' from DER,  
322' right of centerline, 61' AGL/148' MSL. Pole 1484'  
from DER, 636' right of centerline, 41' AGL/111' MSL.  
Sign 73' from DER, 405' right of centerline, 38' AGL/94'  
MSL. Transmission line tower beginning 5428' from  
DER, 855' left of centerline, 132' AGL/307' MSL.  
Transmission line tower 5829' from DER, 466' left of  
centerline, 130' AGL/273' MSL. Transmission line tower  
1.2 NM from DER, 685' left of centerline, 124' AGL/282'  
MSL. Transmission line tower 1.3 NM from DER, 205'  
left of centerline, 112' AGL/296' MSL. Building 1130'  
from DER, 404' left of centerline, 38' AGL/105' MSL.  
Building 1.1 NM from DER, 2020' left of centerline, 76'  
AGL/305' MSL. Building 5081' from DER, 45' left of  
centerline, 69' AGL/228' MSL. Building 5284' from DER,  
94' left of centerline, 69' AGL/230' MSL. Building 1130'  
from DER, 405' left of centerline, 38' AGL/105' MSL.  
Monument 1.3 NM from DER, 2258' left of centerline,  
121' AGL/327' MSL. Tower 1.3 NM from DER, 1711' left  
of centerline, 115' AGL/322' MSL. Towers beginning 1.3  
NM from DER, 1673' left of centerline, up to 83'  
AGL/285' MSL. Tree 5054' from DER, 1002' left of  
centerline, 67' AGL/241 MSL. Trees beginning 2866'  
from DER, 56' left of centerline, up to 67' AGL/170'  
MSL. Poles beginning 263' from DER, 119' left of  
centerline, 37' AGL/93' MSL. Poles beginning 1401'  
from DER, 168' left of centerline, up to 62' AGL/130'  
MSL. **Rwy 25**, tree 988' from DER, 162' right of  
centerline, 71' AGL/136' MSL. Poles beginning 309'  
from DER, 202' right of centerline, up to 77' AGL/149'  
MSL. NAVAID 6' from DER, on centerline, 8' AGL/73'  
MSL. Tank 4471' from DER, 1311' left of centerline,  
137' AGL/227' MSL. Trees beginning 383' from DER,  
91' left of centerline, up to 61' AGL/122' MSL. Pole  
beginning 91' from DER, 257' left of centerline, up to 51'  
AGL/118' MSL. Sign 219' from DER, 75' left of  
centerline, 23' AGL/88' MSL. building 286' from DER,  
363' left of centerline, 36' AGL/101' MSL. Building 2357'  
from DER, 147' left of centerline 83' AGL/154' MSL.  
Building 2.6 NM from DER, 290' left of centerline, 353'  
AGL/462' MSL.

**HEMET, CA**

HEMET-RYAN (HMT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 11293 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, Std. w/min. climb of 440'  
per NM to 3500, or 1700-2½ for climb in visual  
conditions. Aircraft shall advise ATC prior to executing  
the VCOA. **Rwy 23**, std. w/min. climb of 452' per NM to  
3000, or 1700-2½ for climb in visual conditions. Aircraft  
shall advise ATC prior to executing the VCOA.

DEPARTURE PROCEDURE: **Rwy 5**, climbing left turn to  
intercept HDF VOR R-084 to HDF VOR. Thence ... Or  
climb in visual conditions to cross Hemet-Ryan Airport  
westbound at or above 3100, then climb on HDF VOR R-  
093 to HDF VOR ... Thence ...

**Rwy 23**, climbing right turn to intercept HDF VOR R-108  
to HDF VOR. Thence ...

Or climb in visual conditions to cross Hemet-Ryan  
Airport westbound at or above 3100, then climb on HDF  
VOR R-093 to HDF VOR ... Thence ...

... Climb in HDF VOR holding pattern (hold SE, right  
turns, 315° inbound), to cross HDF VOR at or above  
MEA/MCA for direction of flight.

NOTE: **Rwy 5**, vehicles on roadway, 199' from DER, left  
and right of centerline, up to 15' AGL/1534' MSL.

**Rwy 23**, vehicles on roadway, 1185' from DER, left and  
right of centerline, up to 17' AGL/1536' MSL. Trees  
beginning 1.2 NM from DER, 2389' right of centerline, up  
to 100' AGL/1979' MSL. Trees beginning 1.5 NM from  
DER, 1674' left of centerline, up to 100' AGL/1799' MSL.

**IMPERIAL, CA**

IMPERIAL COUNTY (IPL)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2A 09239 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, 400-2¼ or std. w/min.  
climb of 220' per NM to 400, or alternatively, with  
standard TAKEOFF minimums and a normal 200' per  
NM climb gradient, TAKEOFF must occur no later than  
1800' prior to DER.

DEPARTURE PROCEDURE: **Rwys 8, 32**, turn right. **Rwy 14**,  
climb runway heading. **Rwy 26**, turn left. All  
aircraft climb direct IPL VORTAC.

NOTE: **Rwy 8**, multiple VASI beginning 687' from DER,  
31' right of centerline, up to 5' AGL/52' MSL. Antenna on  
building 1033' from DER, 703' left of centerline, 45' AGL/  
-12' MSL. Light on pole, 1984' from DER, 386' left of  
centerline, 55 ft AGL/-2' MSL. **Rwy 14**, building 1770'  
from DER, 38' left of centerline, 45' AGL/-11' MSL. Road  
430' from DER, 291' left of centerline, 15' AGL/-41' MSL.  
Sign 1733' from DER, 35' left of centerline, 45' AGL/-11'  
MSL. Pole 1457' from DER, 393' right of centerline, 37'  
AGL/-19' MSL. **Rwy 26**, multiple obstruction lights on  
poles beginning 1509' from DER, 15' left of centerline, up  
to 60' AGL/3' MSL. Obstruction light on pole 1511' from  
DER, 459' right of centerline, 59' AGL/2' MSL. **Rwy 32**,  
obstruction light on tank, 823' from DER, 574' right of  
centerline 110' AGL/53' MSL. Numerous tanks beginning  
3580' from DER, 296' right of centerline, up to 109'  
AGL/53' MSL. Tree 373' from DER, 387' right of  
centerline, 80' AGL/-24' MSL. Multiple lights beginning  
243' from DER, 361' right of centerline, up to 28' AGL/-  
29' MSL. Pole 657' from DER, 370' left of centerline, 27'  
AGL/-30' MSL. Road 191' from DER, 237' left of  
centerline, 13' AGL/-44' MSL.

26 MAY 2016 to 23 JUN 2016

26 MAY 2016 to 23 JUN 2016

16147

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND****DIVERSE VECTOR AREA (RADAR VECTORS)**



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



16147

## IMPERIAL BEACH NOLF (REAM FIELD) (KNRS)

IMPERIAL BEACH, CA  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
15232

**Rwy 8, 9, 26**, departures not authorized.

**Rwy 27**, diverse departure not authorized. Departures authorized for military rotorcraft only. Climb to 2000 via heading 274° to intercept NRS TACAN R-273. Cross NRS 1.5 DME at or above 800. Minimum ATC climb rate of 600'/NM till 800 with take-off occurring NLT 3038' prior to DER or cross DER at or above 320.

TAKE-OFF OBSTACLES: **Rwy 27**, pylon 186' inward of DER, 552' right of cntrln, 30' AGL/43' MSL. Pylon 79' inward of DER, 521' right of cntrln, 30' AGL/42' MSL. Pylon 61' inward of DER, 587' right of cntrln, 39' AGL/ 51' MSL. Pylon 30' inward of DER, 704' right of cntrln, 39' AGL/50' MSL. Pylon 2' from DER, 499' right of cntrln, 32' AGL/43' MSL. Pylon 2' from DER, 498' right of cntrln, 32' AGL/42' MSL. Light pole 12' from DER, 502' right of cntrln, 40' MSL. Terrain 50' from DER, 500' right of cntrln, 11' MSL. Terrain 63' from DER, 517' right of cntrln, 11' MSL. Fence 96' from DER, 19' right of cntrln, 9' AGL/10' MSL. Tree 141' from DER, 540' right of cntrln, 34' AGL/44' MSL. Pylon 228' from DER, 515' right of cntrln, 30' AGL/42' MSL. Pylon 229' from DER, 515' right of cntrln, 30' AGL/39' MSL. Pylon 305' from DER, 802' right of cntrln, 39' AGL/48' MSL. Bldg 2840' from DER, 979' left of cntrln, 60' MSL.

## INYOKERN, CA

INYOKERN (IYK)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 03247 (FAA)  
TAKEOFF MINIMUMS: **Rwys 2, 10, 15, 28, 33**, NA.  
DEPARTURE PROCEDURE: **Rwy 20**, use LAKE HUGHES  
RNAV DEPARTURE.

## LA VERNE, CA

BRACKETT FIELD (POC)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 5 06047 (FAA)  
TAKEOFF MINIMUMS: **Rwys 26L, 26R**, 300-1.  
DEPARTURE PROCEDURE: **Rwys 8L, 8R**, climb via heading 079° to 1500, then climbing right turn via heading 195° and POM R-164 to PRADO Int. **Rwys 26L, 26R**, climb via heading 259° to 1400, then climbing left turn via heading 130° and POM R-164 to PRADO Int.  
Aircraft departing PRADO Int heading 141° clockwise 290° climb on course. All others climb in PRADO Int holding pattern (hold north, right turn, 164° inbound) to depart PRADO Int at or above: 291° clockwise 340°, 4500; 341° clockwise 050°, 6800; 051° clockwise 090°, 5200; 091° clockwise 140°, 4200.  
NOTE: **Rwy 26L**, multiple trees and antenna beginning 370' from DER, 269' left of centerline up to 100' AGL/1116' MSL. Multiple trees beginning 896' from DER, 70' right of centerline, up to 100' AGL/1010' MSL. Multiple buildings and tanks beginning 2732' from DER, 416' right of centerline, up to 50' AGL/1230' MSL. **Rwy 26R**, hangar 241' from DER, 326' right of centerline, 35' AGL/994' MSL. Multiple trees beginning 1473' from DER, 807' left of centerline, up to 100' AGL/1116' MSL. Tank and trees beginning 2510' from DER, 503' right of centerline, up to 100' AGL/1289' MSL.

16147



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



## LANCASTER, CA

GENERAL WM. J. FOX AIRFIELD (WJF)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG-A 09267 (FAA)  
DEPARTURE PROCEDURE: Climb southeast bound on R-299 to PMD VORTAC. Depart PMD at published MCA for direction of flight.  
NOTE: **Rwy 6**, trees beginning 1170' from DER, 590' right of centerline, up to 44' AGL/2374' MSL.

## LOMPOC, CA

LOMPOC (LPC)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2A 16035 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, std. w/min. climb of 425' per NM to 1400, or 1300-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 7**, climbing right turn. For climb in visual conditions: cross Lompoc Airport eastbound at or above 1200 MSL. **Rwy 25**, turn right heading 130°.

All aircraft climb to 6000 via GVO R-278 to GVO VORTAC. Aircraft departing GVO R-120 CW R-020 climb on course, all others climb in GVO holding pattern (NW, right turns, 127° inbound) to depart GVO VORTAC at or above MEA for route of flight.

LOMPOC (CONT)

NOTE: **Rwy 7**, trees 3583' from DER, 2.3 NM right of centerline, 50' AGL/889' MSL. Trees 1.2 NM from DER, 2.2 NM right of centerline, 50' AGL/791' MSL. Trees 1.6 NM from DER, 1.9 NM right of centerline, 50' AGL/743' MSL.



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16147

## LONG BEACH, CA

### LONG BEACH/DAUGHERTY FIELD (LGB)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 16147 (FAA)

TAKEOFF MINIMUMS: **Rwy 25L/R**, std. w/min. climb of 225' per NM to 2300.

DEPARTURE PROCEDURE: **Rwy 7L/R**, climb heading 076° to 800, then climbing right turn SLI VORTAC and to SLI R-210 to PADDR INT. **Rwy 12**, climb heading 121° to intercept SLI VORTAC R-210 to PADDR INT. **Rwy 25L/R**, climb heading 256° to 800, then climbing left turn heading 200° and LAX VORTAC R-145 to PADDR INT. **Rwy 30**, climb heading 301° to 800, then climbing left turn heading 200° and lax VORTAC R-145 to PADDR INT.

NOTE: **Rwy 7L**, building 347' from DER, 416' right of centerline, 19' AGL/53' MSL. Tree 580' from DER, 12' right of centerline, 67' MSL. Poles beginning 606' from DER, 250' right of centerline, up to 29' AGL/65' MSL. Trees beginning 776' from DER, 243' right of centerline, up to 111' MSL. Trees beginning 1456' from DER, 203' right of centerline, up to 117' MSL. Vehicle on road 317' from DER, 248' left of centerline, 15' AGL/53' MSL. Poles beginning 329' from DER, 308' left of centerline, up to 31' AGL/66' MSL. Tree 516' from DER, 137' left of centerline, 72' MSL. **Rwy 7R**, trees beginning 327' from DER, 231' right of centerline, up to 70' AGL/95' MSL. Buildings beginning 1473' from DER, 822' right of centerline, up to 99' AGL/118' MSL. Light poles beginning 380' from DER, 390' right of centerline, up to 50' AGL/60' MSL. Trees beginning 1208' from DER, 197' left of centerline, up to 71' AGL/101' MSL. Buildings beginning 277' from DER, 474' left of centerline, up to 42' AGL/72' MSL. **Rwy 12**, trees beginning 969' from DER, 391' right of centerline, up to 65' AGL/87' MSL. Spire 3094' from DER, 1182' right of centerline, 98' AGL/118' MSL. Trees beginning 1124' from DER, 357' left of centerline, up to 71' AGL/98' MSL. Light pole 1126' from DER, 607' left of centerline, 37' AGL/59' MSL. Pipe 1146' from DER, 334' left of centerline, 31' AGL/55' MSL. **Rwy 25L**, tree 2008' from DER, 182' right of centerline, 73' AGL/107' MSL. Light pole 1283' from DER, 122' right of centerline, 29' AGL/88' MSL. Building 1149' from DER, 793' right of centerline, 105' AGL/163' MSL. Tower 3821' from DER, 439' right of centerline, 75' AGL/158' MSL. Light pole 1283' from DER, 122' right of centerline, 29' AGL/88' MSL. Trees beginning 486' from DER, 91' left of centerline, up to 77' AGL/144' MSL. Signs beginning 1074' from DER, 209' left of centerline, up to 35' AGL/108' MSL. **Rwy 25R**, REIL 68' from DER, 59' right of centerline, 5' AGL/68' MSL. Tree 243' from DER, 366' right of centerline, 97' MSL. Building 250' from DER, 204' right of centerline, 30' AGL/93' MSL. Pole 623' from DER, 128' right of centerline, 25' AGL/89' MSL. Tree 631' from DER, 409' right of centerline, 122' MSL. Trees beginning 1247' from DER, 2' right of centerline, up to 133' MSL. Building 1.1 NM from DER, 972' right of centerline, 156' AGL/248' MSL. Building 1.30 NM from DER, 655' right of centerline, 157' AGL/259' MSL. Fence 179' from DER, 8' left of centerline, 5' AGL/68' MSL. Poles beginning 322' from DER, 111' left of centerline, up to 34' AGL/95' MSL. Sign 1153' from DER, 5' left of centerline, 77' AGL/139' MSL. Tree 1259' from DER, 591' left of centerline, 127' MSL. Tree 2148' from DER, 249' left of centerline, 117' MSL. **Rwy 30**, trees beginning 1596' from DER, 104' right of centerline, up to 55' AGL/121' MSL. Light poles beginning 356' from DER, 245' right of centerline, up to 30' AGL/93' MSL. Pole 312' right of centerline, 72' AGL/145' MSL. Buildings beginning 1338' from DER, 621' right of centerline, up to 66' AGL/139' MSL. Railroad beginning 648' from DER, on centerline, 17' AGL/91' MSL. Trees beginning 1205' from DER, 517' left of centerline, up to 65' AGL/130' MSL. Light poles beginning 984' from DER, 69' left of centerline, up to 54' AGL/127' MSL. Buildings beginning 351' from DER, 289' left of centerline, up to 22' AGL/89' MSL. Poles beginning 1939' from DER, 312' left of centerline, up to 54' AGL/127' MSL.

16147

## LOS ALAMITOS AAF (KSLI)

### LOS ALAMITOS, CA

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Rwy 22L/R, 300-1\*

\* Or standard with minimum climb of 230'/NM to 400.

**Rwy 4L/R** climbing right turn; Rwy 22L/R climbing left turn. All aircraft climb direct SLI VORTAC. Aircraft departing SLI VORTAC R-040 CW 345 climb on course. All others continue climb via the SLI R-171 southbound then climbing right turn direct SLI VORTAC to cross at or above 4600'.

## LOS ANGELES, CA

### LOS ANGELES INTL (LAX)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 12A 16035 (FAA)

TAKEOFF MINIMUMS: **Rwy 6R**, 200-1¼ or std. w/ min. climb of 275' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 6L/R, 7L/R**, climb to 2000 heading 071°, then climbing right turn, thence... **Rwy 24L/R**, climb to 2000 heading 251°, then climbing left turn, thence... **Rwy 25L/R**, turbojet climb to 2000 heading 251°, then climbing left turn, thence... non-turbojet climb to 2000 heading 251°, at the SMO R-154 turn left heading 200°, thence... climb direct SLI VORTAC, then climb on course.

NOTE: **Rwy 6L**, buildings and signs beginning 1693' from DER, 339' left of centerline, up to 50' AGL/201' MSL. **Rwy 6R**, ant on building 560' from DER, 479' right of centerline, 18' AGL/127' MSL. OL on building 5550' from DER, 1791' right of centerline, 202' AGL/306ft MSL. OL on sign and sign beginning 1866' from DER, 920' left of centerline, up to 49' AGL/161' MSL. **Rwy 7L**, OL on blast fence 168' from DER, 33' left of centerline, 14' AGL/106' MSL, poles beginning 1290' from DER, 505' left of centerline, up to 55' AGL/147' MSL, ant on building 1576' from DER, 315' left of centerline, 55' AGL/147' MSL, sign and railroad beginning 351' from DER, 10' left of centerline, up to 29' AGL/124' MSL, railroad 275' from DER, 500' right of centerline, 23' AGL/115' MSL, approach light and OL on LOC beginning 979' from DER, on runway centerline, up to 27' AGL/119' MSL. **Rwy 7R**, trees and building beginning 790' from DER, 606' right of centerline, up to 58' AGL/157' MSL. **Rwy 24L**, bush 956' from DER, 600' left of centerline, 40' AGL/148' MSL, light poles beginning 273' from DER, 425' left of centerline, up to 10' AGL/120' MSL, ant on pole 1357' from DER, 286' right of centerline, 36' AGL/144' MSL. It poles and bushes beginning 239' from DER, 321' right of centerline, up to 8' AGL/116' MSL. **Rwy 24R**, OL on GS 212' from DER, 399' left of centerline, 39' AGL/151' MSL. **Rwy 25L**, tree and pole beginning 2366' from DER, 764' left of centerline, up to 80' AGL/197' MSL, transmission towers beginning 2800' from DER, 926' left of centerline, up to 71' AGL/192' MSL, bush 133' from DER, 397' left of centerline, 4' AGL/123' MSL.

#### DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 4 16035 (FAA)

**Rwy 6R**, headings as assigned by ATC; requires minimum climb of 260' per NM to 400. **Rwys 6L, 7L, 7R, 24L, 24R, 25L, 25R**, headings as assigned by ATC.



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)





# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND

## DIVERSE VECTOR AREA (RADAR VECTORS)



16147

### LOS ANGELES, CA (CON'T)

WHITEMAN (WHP)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 94034 (FAA)

TAKEOFF MINIMUMS: **Rwys 12, 30**, 2900-2 or std. with a min. climb of 350' per NM to 4300.

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn direct VNY VOR/DME. **Rwy 30**, climbing left turn heading 260°. **All aircraft** climb to 4500 via VNY R-325, then climbing left turn direct VNY VOR/DME.

### MARCH ARB (KRIV)

RIVERSIDE, CA

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5 14205

TAKEOFF MINIMUMS: **Rwy 32**, 1200-3 or standard with a minimum climb rate of 240 ft/NM to 3100.

DEPARTURE PROCEDURE: **Rwy 14**, Climb direct HDF VOR, then climbing right turn on heading between 155° CW to 181°. Max airspeed 250 KIAS. **Rwy 32**, Climb left turn heading between 150° to 135° CCW from departure end of the runway. Maximum 250 KIAS or 2300-3 **For Climb in Visual Conditions** within 4.5 NM of March ARB, cross March ARB at or above 3700 MSL, then climb and maintain 6000 direct HDF VOR, then via HDF R-153 to HDF R-153/PDZ R-130, direct SKYES INT. Do not exceed 250 KIAS until passing SKYES. Aircraft shall advise ATC prior to executing VCOA. VCOA not available for Cat E aircraft.

TAKEOFF OBSTACLES: **Rwy 14**, tree 150' AGL/1630' MSL, 2248' from DER, 1000' right of centerline. Tree 150' AGL/1630' MSL, 1920' from DER, 1000' right of centerline. Tree 150' AGL/1630' MSL, 1789' from DER, 1000' right of centerline. Tree 150' AGL/1622' MSL, 2278' from DER, 1002' left of centerline. Aircraft 65' AGL/1550' MSL, 28' inward of DER, 542' left of centerline. Aircraft 30' AGL/1516' MSL, 31' inward of DER, 298' left of centerline. Use caution when departing Rwy 14, rapid rising terrain within 3.5 NM SE of March ARB. **Rwy 32**, Aircraft 65' AGL/1600' MSL, 30' from DER, 526' right of centerline. Aircraft 30' AGL/1565' MSL, 5' from DER, 282' right of centerline.

### MIRAMAR MCAS (MITSCHER FLD) (KNKX)

SAN DIEGO, CA

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

15344

**Rwy 6L/R** 340° through 150° CW-Civil, standard with minimum climb of 300 ft/NM to 7600; Military, standard with minimum climb of 280 ft/NM to 7600. **Rwy 24L/R** 100° through 340° CW-Civil standard with minimum climb of 290 ft/NM to 7600; Military, standard with minimum climb of 270 ft/NM to 7600.

TAKEOFF OBSTACLES: **Rwy 6L**, tower 2322' from DER, 1084' left of centerline, 53' AGL/538' MSL. Building 2321' from DER, 1084' left of centerline, 539' MSL. Tower 2366' from DER, 1083' left of centerline, 53' AGL/538' MSL. **Rwy 24L**, landfill 3605' from DER, 1681' left of centerline, 40' AGL/525' MSL. Landfill 3312' from DER, 1197' left of centerline, 40' AGL/525' MSL. Landfill 3792' from DER, 1225' left of centerline, 40' AGL/525' MSL. Landfill 3388' from DER, 1022' left of centerline, 40' AGL/525' MSL. Landfill 3489' from DER, 1483' left of centerline, 40' AGL/525' MSL. Terrain 47' from DER, 512' left of centerline, 457' MSL. Terrain 16' from DER, 500' left of centerline, 457' MSL. Terrain 384' from DER, 549' right of centerline, 459' MSL. Terrain 50' from DER, 500' right of centerline, 459' MSL. Terrain 63' from DER, 517' right of centerline, 459' MSL. Landfill 3091' from DER, 1243' left of centerline, 40' AGL/525' MSL.

### MOJAVE, CA

MOJAVE AIR AND SPACE PORT (MHV)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2A 14177 (FAA)

TAKEOFF MINIMUMS: **Rwys 4, 8, 12**, NA - restricted airspace. **Rwys 22, 26**, std. w/min. climb of 415' per NM to 6800 or 4100-3 for climb in visual conditions.

**Rwy 30**, std. w/min. climb of 510' per NM to 5600 or 4100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 22**, climb to 8000 heading 218° and LHS R-023 to LHS VORTAC. **Rwy 26**, climbing left turn to 8000 heading 218° and LHS R-023 to LHS VORTAC. **Rwy 30**, climbing left turn to 8000 heading 200° and LHS R-023 to LHS VORTAC.

VCOA: **Rwy 22**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions cross Mojave airport southwest bound at or above 6800, then climb to 8000 on LHS R-023 to LHS VORTAC.

**Rwy 26**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions cross Mojave airport at or above 6800, then climb to 8000 on LHS R-023 to LHS VORTAC. **Rwy 30**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions cross Mojave airport at or above 6800, then climb to 8000 on LHS R-023 to LHS VORTAC.

NOTE: **Rwy 22**, antenna on tower 2260' from DER, 812' right of centerline, 60' AGL/2838' MSL. Sign 283' from DER, 466' right of centerline, 10' AGL/2788' MSL. **Rwy 26**, antenna on tower 1797' from DER, 615' left of centerline, 58' AGL/2838' MSL. Sign 32' from DER, 341' right of centerline, 8' AGL/2788' MSL. Tree 258' from DER, 120' left of centerline, 8' AGL/2788' MSL. **Rwy 30**, multiple poles beginning 3083' from DER, 306' right of centerline, up to 91' AGL/2892' MSL. Road and railroad beginning 1241' from DER, right and left of centerline, up to 44' AGL/2845' MSL. Bush 305' from DER, 457' right of centerline, 16' AGL/2817' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND

## DIVERSE VECTOR AREA (RADAR VECTORS)





# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



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## MURRIETA/TEMECULA, CA

FRENCH VALLEY (F70)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 97254 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, NA. **Rwy 36**, 700-2 or  
std. with a min. climb of 340' per NM to 2200.DEPARTURE PROCEDURE: **Rwy 36**, climb runway  
heading to 2200, then climbing left turn via HDF R-145  
to HDF VOR. Aircraft departing HDF VOR 065° CW  
352° climb on course. Aircraft departing northeast  
bound, climb in HDF holding pattern, (SE, right turns,  
315° inbound) to depart HDF VOR at or above: 353°  
CW 054°, 6800; 055° CW 064°, 5800; before  
proceeding on course.

## NEEDLES, CA

NEEDLES (EED)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 14009 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, std. w/min. climb of 235'  
per NM to 2800, or 2600-3 for climb in visual conditions.**Rwy 20**, std. w/min. climb of 420' per NM to 3700, or  
2600-3 for climb in visual conditions. **Rwy 29**, std. w/  
min. climb of 390' per NM to 2200, or 2600-3 for climb  
in visual conditions.DEPARTURE PROCEDURE: **Rwy 2**, climb heading  
015° to 1700, then climbing right turn direct EED  
VORTAC, thence . . .**Rwys 11, 20**, climbing left turn direct EED VORTAC,  
thence . . .**Rwy 29**, climbing right turn direct EED VORTAC,  
thence . . .. . . Climb in EED holding pattern (hold NW, right turns,  
139° inbound) to cross EED VORTAC at or above MEA  
for route of flight before proceeding on course. Or for  
climb in visual conditions cross Needles airport at or  
above 3400 before proceeding on course. When  
executing VCOA, notify ATC prior to departure.NOTE: **Rwy 11**, terrain 20' from DER, 301' right of  
centerline, 920' MSL. **Rwy 20**, building 73' from DER,  
451' left of centerline, 21' AGL/976' MSL. Windsock  
181' from DER, 409' left of centerline, 23' AGL/972'  
MSL. Terrain beginning 295' from DER, 341' right of  
centerline up to 1079' MSL. **Rwy 29**, terrain 92' from  
DER, 328' left of centerline 1000' MSL.

## NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

SAN DIEGO, CA

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

14037

DEPARTURE PROCEDURE: **Rwy 11**, diverse departures  
authorized 129° CW 182°. Cross DER at or above 25'  
AGL (51' MSL). Make immediate right turn to assigned  
heading within 1.4 DME of NZY TACAN to avoid over  
flying the City of Coronado. **Rwy 18**, diverse departures  
authorized 129° CW 175°. **Rwy 29**, diverse departures  
not authorized. Use published DP. **Rwy 36**, departure  
not authorized.TAKE-OFF OBSTACLES: **Rwy 11**, Numerous trees left  
and right of runway centerline from 9' prior to DER to  
2018', 33' MSL to 95' MSL. Golf ball fencing 74' AGL/88'  
MSL, 2226' from DER, 1215' left of centerline. Tree 8'  
inward of DER, 429' right of centerline, 48' AGL/74' MSL.  
Tree 11' from DER, 525' right of centerline, 46' AGL/73'  
MSL. Multiple trees 159' from DER, 433' right of  
centerline, 43' AGL/71' MSL. Tree 78' from DER, 371'  
right of centerline, 29' AGL/56' MSL. Tree 91' from DER,  
460' right of centerline, 28' AGL/55' MSL. Palm 90' from  
DER, 468' right of centerline, 27' AGL/54' MSL. **Rwy 29**,  
Shipping Channel accommodating vessels up to 200'  
AGL (206' MSL with tidal range), starting 2577' from  
DER on centerline. Twin Towers 145' AGL/534' MSL, 1.4  
NM from DER, 2645' left of centerline. Tower 479' MSL,  
1.5 NM from DER, 1969' left of centerline. Tower 100'  
AGL/455' MSL, 1.5 NM from DER, 2054' left of  
centerline. Tower 120' AGL/544' MSL, 1139' from DER,  
2.1 NM left of centerline.

## OCEANSIDE, CA

BOB MAXWELL MEMORIAL AIRFIELD  
(OKB)TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 4A 16119 FAA

TAKEOFF MINIMUMS: **Rwy 6**, 400-1 or std. with a min.  
climb of 320' per NM to 500. **Rwy 24**, 300-1 or std. with  
a min. climb of 670' per NM to 300.DEPARTURE PROCEDURE: **Rwy 6**, climbing right turn.  
**Rwy 24**, climbing left turn. All aircraft climb via heading  
235° to 1500, then climbing right turn direct OCN  
VORTAC.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****ONTARIO, CA****ONTARIO INTL (ONT)****TAKEOFF MINIMUMS AND (OBSTACLE)****DEPARTURE PROCEDURES****AMDT 9 16147 (FAA)****TAKEOFF MINIMUMS: Rwy 8L, 8R**, std. w/ min. climb of 285' per NM to 3000.**DEPARTURE PROCEDURE: Rwy 8L, 8R**, climb

heading 078° to 2600 then climbing right turn direct

PDZ VORTAC, thence ... **Rwys 26L, 26R**, climb

heading 258° to 2600 then climbing left turn direct PDZ VORTAC, thence...

...climb in PDZ holding pattern (hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above MEA for route of flight before proceeding on course.

**NOTE: Rwy 8L**, grd 81' from DER, 443' left of centerline, 936 MSL. Building 1605' from DER, 846' left of centerline, 975 MSL. Lt poles beginning 2042' from DER, 684' left of centerline, up to 990 MSL. **Rwy 26L**, pole 754' from DER, 670' left of centerline, 964 MSL. Trees beginning 1050' from DER, 708' left of centerline, up to 985 MSL. Tree 1987' from DER, 329' left of centerline, 986 MSL. OL on GS, 125' from DER, 339' right of centerline, 982 MSL. **Rwy 26R**, grd, antenna on building, beginning 30' from DER, 396' left of centerline, up to 951' MSL. Lt pole 483' from DER, 263' left of centerline, 973' MSL. Pole, RR, LT pole beginning 580' from DER, 371' left of centerline, up to 978' MSL. OL on DME, OL on LOC, beginning 369' from DER, 1' right of centerline, up to 962' MSL. Lt poles beginning 1144' from DER, 211' right of centerline, up to 981' MSL. Pole, LT pole beginning 1244' from DER, 543' right of centerline, up to 986' MSL. Tree 1672' from DER, 696' right of centerline, 996' MSL. Trees, beginning 2882' from DER, 673' right of centerline, up to 1030' MSL.

**DIVERSE VECTOR AREA (RADAR VECTORS)****AMDT 2 16147 (FAA)**

**Rwy 8L**, headings as assigned by ATC; requires minimum climb of 280' per NM to 2900. **Rwy 8R**, headings as assigned by ATC; requires minimum climb of 285' per NM to 2900. **Rwys 26L, 26R**, headings as assigned by ATC.

**OXNARD, CA****OXNARD (OXR)****TAKEOFF MINIMUMS AND (OBSTACLE)****DEPARTURE PROCEDURES****AMDT 6 00167 (FAA)****TAKEOFF MINIMUMS: Rwy 7**, 2100-5 or std. with a min. climb of 290' per NM to 2600.**DEPARTURE PROCEDURE: Rwy 7**, climbing left turn.

**Rwy 25**, climb runway heading. **All aircraft** continue climb to 6000 (or assigned altitude) via CMA R-249 to SQUID Int. Aircraft departing SQUID Int 040° CW 300° climb on course. All others continue climb in SQUID holding pattern (Hold W, right turns, 069° inbound) to cross SQUID INT at or above 2300.

**NOTE: Rwy 7**, 59' AGL tree 527' from DER, 501' left of centerline.

**PALM SPRINGS, CA****BERMUDA DUNES (UDD)****TAKEOFF MINIMUMS AND (OBSTACLE)****DEPARTURE PROCEDURES****ORIG 95033 (FAA)**

**TAKEOFF MINIMUMS: Rwy 28**, CAT A,B 1200-2 or std. with a min. climb of 450' per NM to 1400. CAT C,D 2100 -2 or std. with a min. climb of 490' per NM to 3400.

**DEPARTURE PROCEDURE: Rwy 10**, climbing right turn heading 150°. **Rwy 28**, climbing left turn heading 090°.

**All aircraft** continue climb via TRM R-304 to TRM

VORTAC. Aircraft departing TRM R-095 CW

R-165 climb on course. All others continue climb in TRM

holding pattern (E, right turns, 289° inbound) to cross

TRM VORTAC at or above: R-166 CW 290°, 6500; 291°

CW R-310, 4900; R-311 CW 094°, 3200.

**JACQUELINE COCHRAN RGNL (TRM)****TAKEOFF MINIMUMS AND (OBSTACLE)****DEPARTURE PROCEDURES****AMDT 2 94062 (FAA)****TAKEOFF MINIMUMS: Rwy 30**, CAT C,D 3400-2 or std.with a min. climb of 410' per NM to 3700. **Rwy 35**, CAT

A,B 400-2 or std. with a min. climb of 210' per NM to 400.

CAT C,D 3400-2 or std. with a min. climb of 410' per NM

to 3700.

**DEPARTURE PROCEDURE: Rwys 12,17**, climbing leftturn. **Rwys 30, 35**, climbing right turn heading 150°.

Aircraft departing TRM R-101 CW R-139, climb on

course. All others continue climb east-bound via the

TRM R-109 then climbing right turn to cross TRM

VORTAC at or above: R-304 CW R-100, 4000; R-140

CW R-199, 4700; R-200 CW R-303, 6600.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



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## PALM SPRINGS, CA (CON'T)

### PALM SPRINGS INTL (PSP)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5A 13178 (FAA)

TAKEOFF MINIMUMS: **Rwy 13L**, minimum climb of 440' per NM to 2300' or 5900-3 for climb in visual conditions.

**Rwy 13R**, minimum climb of 422' per NM to 2300' or 5900-3 for climb in visual conditions. **Rwy 31L**, minimum climb of 386' per NM to 4500' or 5900-3 for climb in visual conditions. **Rwy 31R**, minimum climb of 405' per NM to 4500' or 5900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 13L/R**, climbing left turn heading 090° to intercept TRM R-304 to TRM VORTAC or for climb in visual conditions cross Palm Springs Intl airport at or above 6300 then direct PSP VORTAC thence ... **Rwy's 31L/R**, climbing right turn direct PSP VORTAC thence ..., or for climb in visual conditions cross Palm Springs Intl airport at or above 6300 then direct PSP VORTAC thence ...

... via PSP R-124 and TRM R-304 to TRM VORTAC.

**All Rwys** if not at MEA/MCA at TRM VORTAC, climb in TRM holding pattern (hold E, right turns, 289° inbound) until reaching MEA/MCA for assigned route of flight. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 13L**, trees beginning 299' from DER, 530' left of centerline, up to 66' AGL/465' MSL. HGR 935' from DER, 552' left of centerline, 31' AGL/440' MSL.

**Rwy 13R**, trees beginning 1170' from DER, 239' right of centerline, up to 100' AGL/599' MSL. Poles beginning 815' from DER, 209' right of centerline, up to 44' AGL/433' MSL. Light 843' from DER, 441' right of centerline, 38' AGL/427' MSL. Antenna 1642' from DER, 26' right of centerline, 53' AGL/442' MSL. **Rwy 31L**, poles beginning 1641' from DER, 125' right of centerline, up to 31' AGL/550' MSL. Towers beginning 2418' from DER, 402' left of centerline, up to 59' AGL/560' MSL. Tree 3016' from DER, 66' right of centerline, 43' AGL/562' MSL. **Rwy 31R**, multiple trees and bushes beginning 305' from DER, 233' right of centerline, up to 48' AGL/507' MSL. Vent on building 919' from DER, 399' right of centerline, 15' AGL/474' MSL.

## DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 15316 (FAA)

**Rwy 13L**, heading as assigned by ATC; requires minimum climb of 310' per NM to 4800. **Rwy 13R**, heading as assigned by ATC; requires minimum climb of 340' per NM to 2700. **Rwy 31L**, heading as assigned by ATC; requires minimum climb of 480' per NM to 7000. **Rwy 31R**, heading as assigned by ATC; requires minimum climb of 490' per NM to 7000.

## PALMDALE, CA

### PALMDALE USAF PLANT 42 (PMD)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 10154 (FAA)

TAKEOFF MINIMUMS: **Rwy 22**, std. with a min. climb of 300' per NM to 3800 or 1300-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 4,7**, climbing left turn intercept PMD VORTAC R-298 to cross FISCH INT at or above MEA/MCA for route of flight, if not at MEA/MCA continue climb in FISCH INT holding pattern (hold Southeast, left turns, 298° inbound) to cross FISCH INT at or above 6500 or MCA for route of flight. **Rwy 22**, climbing right turn intercept PMD VORTAC R-298 to cross FISCH INT at or above MEA/MCA for route of flight, if not at MEA/MCA continue climb in FISCH INT holding pattern (hold Southeast, left turns, 298° inbound) to cross FISCH INT at or above 6500 or MCA for route of flight, or for climb in visual conditions cross Palmdale Rgnl/USAF Plant 42 at or above 3700 then via PMD VORTAC R-298 to cross FISCH INT at or above MEA/MCA for route of flight, if not at MEA/MCA continue climb in FISCH INT holding pattern (hold Southeast, left turns, 298° inbound) to cross FISCH INT at or above 6500 or MCA for route of flight. **Rwy 25**, climbing right turn intercept PMD VORTAC R-298 to cross FISCH INT at or above MEA/MCA for route, if not at MEA/MCA continue climb in FISCH INT holding pattern (hold Southeast, left turns, 298° inbound) to cross FISCH INT at or above 6500 or MCA for route of flight.

NOTE: **Rwy 25**, tree 2395' from DER 986' left of centerline, 100' AGL/2659' MSL.

## PASO ROBLES, CA

### PASO ROBLES MUNI (PRB)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 88182 (FAA)

DEPARTURE PROCEDURE: All departures maintain 250 kts or less until inbound to PRB. **Rwy 1**, climb to 3000 via heading 280° to intercept PRB R-326 outbound. V248 northbound climb on course. All others climbing right turn to 4500 direct PRB. **Rwy 13**, climb to 3000 via heading 160° to intercept PRB R-133 outbound. V25 southbound continue climb on course. All others climbing right turn to 4500 direct PRB. **Rwy 19**, climb to 3000 via heading 150° to intercept PRB R-179 outbound. V113 southbound continue climb on course. All others climbing left turn to 4500 direct PRB. **Rwy 31**, climb to 3000 via heading 340° to intercept PRB R-326 outbound. V248 northbound climb on course. All others climbing right turn to 4500 direct PRB.

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## POINT MUGU NAS (NAVAL BASE VENTURA CO) (KNTD)

OXNARD, CA

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

14289

DEPARTURE PROCEDURE: **Rwy 3**, Diverse departures authorized 210° to 270° CW. Right turns on departure not authorized. Turn left to assigned heading within 3 DME of NTD TACAN. Do not exceed 300 KIAS until established on assigned heading. **Rwy 9**, Diverse departures not authorized. **Rwy 21**, Diverse departures authorized 140° to 290°. **Rwy 27**, Diverse departures authorized 140° to 290° CW. Right turns on departure not authorized. Turn left to assigned heading. Do not exceed 310 KIAS until established on assigned heading. CAUTION: Mountainous terrain NW thru SE.

TAKE-OFF OBSTACLES: **Rwy 3**, trees 90' MSL, 2921' from DER, 1198' left of centerline. Tower 90' MSL, 3006' from DER, 1236' left of centerline. Trees 77' MSL, 2969' from DER, 1041' right of centerline. **Rwy 21**, terrain 12' MSL, 50' from DER, 500' right of centerline. Terrain 13' MSL, 63' from DER, 517' right of centerline. **Rwy 27**, radar antenna 56' AGL/66' MSL, 960' from DER, 985' right of centerline.

TAKEOFF OBSTACLES: **Rwy 3**, Tower 90' MSL, 3005' from DER, 1238' left of centerline; Trees 90' MSL, 2920' from DER, 1199' left of centerline.

## RAMONA, CA

RAMONA (RNM)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3A 13206 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, std. w/ min. climb of 500' per NM to 4000, or 3800-3 for climb in visual conditions. **Rwy 27**, std. w/ min. climb of 332' per NM to 2600, or 3800-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 9**, climb via heading 088° to 4000, then climbing left turn via heading 330° and JLI VORTAC R-263/OCN VORTAC R-083 to ROBNN INT before proceeding on course, or for climb in visual conditions, cross Ramona airport at or above 5000 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 27**, climb via heading 268° to 2600, then climbing right turn via PGY VORTAC R-336 to ROBNN INT before proceeding on course, or for climb in visual conditions, cross Ramona airport at or above 5000 before proceeding on course. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 9**, sign 23' from DER, 178' left of centerline, 9' AGL/1399' MSL. Tree 94' from DER, 343' right of centerline, 20' AGL/1403' MSL. Trees beginning 2468' from DER, 180' right of centerline, up to 100' AGL/1539' MSL. Trees beginning 2637' from DER, 305' left of centerline, up to 100' AGL/1487' MSL. **Rwy 27**, tree 657' from DER, 12' left of centerline, 100' AGL/1499' MSL. Trees 1.85 NM from DER, 92' left of centerline, up to 100' AGL/1719' MSL.

## REDLANDS, CA

REDLANDS MUNI (REI)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 13122 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, NA. **Rwy 26**, 1700-2 or std. with a min. climb of 300' per NM to 4000.

DEPARTURE PROCEDURE: Climbing left turn direct PDZ VORTAC. Aircraft departing PDZ VORTAC R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue in PDZ VORTAC holding pattern (hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above, R-281 CW R-090, 7700; R-141 CW R-230, 4900.

NOTE: **Rwy 26**, trees beginning 17' from DER, 82' left of centerline, up to 34' AGL/1506' MSL.

## RIVERSIDE, CA

RIVERSIDE MUNI (RAL)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 10 12264 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, NA- terrain. **Rwy 9**, std. w/min. climb of 300' per NM to 5500. **Rwy 27**, std. w/min. climb of 310' per NM to 6800. **Rwy 34**, std. w/min. climb of 488' per NM to 3900.

DEPARTURE PROCEDURE: **Rwy 9**, climb heading 089° to 1700 then climbing right turn heading 210° to intercept PDZ VORTAC R-093 to PDZ VORTAC, thence ...

**Rwy 27**, climb heading 269° to 2200 then climbing left turn direct PDZ VORTAC, thence ...

**Rwy 34**, climb heading 344° to 1800 then climbing left turn heading 230° to intercept PDZ VORTAC R-352 to PDZ VORTAC, thence ...

... Aircraft departing PDZ VORTAC R-091 CW R-140 and R-231 CW R-280 climb on course. All others climb in holding pattern (hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above; R-321 CW R-340 7800; All others 7200 or airway MEA.

NOTE: **Rwy 9**, multiple trees and terrain beginning at DER, 499' left of centerline, up to 40' AGL/856' MSL. Fence 78' from DER, 497' left of centerline, 6' AGL/ 826' MSL. Trees beginning 605' from DER, 591' right of centerline, up to 40' AGL/867' MSL. Trees, bushes and terrain beginning 947' from DER, 535' left of centerline, up to 40' AGL/866' MSL. **Rwy 27**, multiple trees and poles beginning 602' from DER, left and right of centerline, up to 40' AGL/790' MSL. **Rwy 34**, vent on building, 30' from DER, 307' right of centerline, 20' AGL/800' MSL. Obstruction light on lighted wind sock, 62' from DER, 347' right of centerline, 31' AGL/811' MSL. Obstruction light on building, 63' from DER, 350' left of centerline, 37' AGL/796' MSL. Trees, terrain, obstruction light on pole and obstruction light on lighted pole beginning 193' from DER, 202' right of centerline, up to 49' AGL/854' MSL. Trees and light on pole beginning 300' from DER, 203' left of centerline, up to 55' AGL/814' MSL. Vent on building 1214' from DER, 377' left of centerline, 73' AGL/832' MSL. Pole, 1915' from DER, 135' left of centerline, 55' AGL/834' MSL. Terrain, trees, building and antenna on tank, beginning 1.49 NM from DER, 250' right and left of centerline, up to 50' AGL/1369' MSL.

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## RIVERSIDE/RUBIDOUX, CA

### FLABOB (RIR)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 11181 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, std. w/min. climb of 670' per NM to 4000 or 400-2 w/min. climb of 480' per NM to 4000 or 2100-3 for climb in visual conditions. **Rwy 24**, std. w/min. climb of 630' per NM to 3000 or 800-2 1/2 w/min. climb of 305' per NM to 4600 or 2100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 6**, climb via heading 064° to 4000 then right turn direct PDZ VORTAC, or for climb in visual conditions cross Flabob Airport Southwest bound at or above 2700 then via PDZ R-039 to PDZ VORTAC. **Rwy 24**, climb via heading 244° and PDZ R-031 to PDZ VORTAC, or for climb in visual conditions cross Flabob airport Southwest bound at or above 2700 then via PDZ R-039 to PDZ VORTAC. All aircraft climb in PDZ VORTAC holding pattern (hold East, right turns, 258° inbound) to cross PDZ VORTAC at or above MEA for direction of flight before proceeding on course.

NOTE: **Rwy 6**, trees beginning 3763' from DER, 1152' right of centerline, up to 40' AGL/1119' MSL. **Rwy 24**, antenna on tank 6193' from DER, 2057' right of centerline, 38' AGL/1237' MSL. Trees beginning 2494' from DER, 434' right of centerline, up to 40' AGL/1519' MSL. Pole 6261' from DER, 1950' right of centerline, 30' AGL/1230' MSL. Building 1.52 NM from DER, 1154' right of centerline, up to 29' AGL/1369' MSL. Antenna on tank 1.26 NM from DER, 2047' right of centerline, 54' AGL/1254' MSL. Tank 4043' from DER, 794' right of centerline, 66' AGL/961' MSL. Tree 1.79 NM from DER, 434' right of centerline, 58' AGL/1138' MSL.

## SALINAS, CA

### SALINAS MUNI (SNS)

#### DIVERSE VECTOR AREA (RADAR VECTORS) ORIG 15064 (FAA)

**Rwy 8**, heading as assigned by ATC; requires minimum climb of 330' per NM to 5000. **Rwy 13**, heading as assigned by ATC; requires minimum climb of 330' per NM to 5000. **Rwy 26**, heading as assigned by ATC. **Rwy 31**, heading as assigned by ATC.

## SAN BERNARDINO, CA

### SAN BERNARDINO INTL (SBD)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 93343 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, CAT A,B 2100-2 or std. with a min. climb of 340' per NM to 3700. CAT C,D 3100-2 or std. with a min. climb of 480' per NM to 4600. DEPARTURE PROCEDURE: **Rwy 6**, climbing right turn. **Rwy 24**, climbing left turn. All aircraft climb direct PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (Hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 7700; R-141 CW R-230, 4900.

## SAN CLEMENTE ISLAND NALF

### (FREDERICK SHERMAN FLD)(KNUC)

#### SAN CLEMENTE ISLAND, CA TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES 15288

**Rwy 6**: Diverse departures authorized 092° to 235° CCW. **Rwy 24**: Diverse departures authorized 162° to 055° CW. TAKE-OFF OBSTACLES: **Rwy 6**, pylon 199' MSL, 45' from DER, 272' left of centerline. Terrain 199' MSL, 958' from DER, 613' right of centerline.

## SAN DIEGO, CA

### BROWN FIELD MUNI (SDM)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 10154(FAA)

TAKEOFF MINIMUMS: **Rwy 8L**, std. w/ min. climb of 570' per NM to 3100. **Rwys 8R,26L**, NA - ATC.

DEPARTURE PROCEDURE: **Rwy 8L**, climbing left turn, thence...**Rwy 26R**, climbing right turn, thence...

...via heading 280° to intercept MZB R-160 to MZB VORTAC.

NOTE: **Rwy 26R**, tree 1284' from DER, 778' left of centerline, 52' AGL/561' MSL.

## MONTGOMERY FIELD (MYF)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3A 10210 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, 1500-2 or std. with a min. climb of 290' per NM to 1700.

DEPARTURE PROCEDURE: **Rwys 5, 10L/R**, climbing right turn. **Rwys 28L/R**, climbing left turn. All aircraft climb direct to MZB VORTAC. Aircraft departing MZB R-090 CW R-360 climb on course. All others climb in MZB holding pattern (W, right turns, 075° inbound) to cross MZB VORTAC at or above 1800.

NOTE: **Rwy 5**, trees and bushes beginning 244' from DER, 161' left of centerline, up to 99' AGL/524' MSL. Tree 1287' from DER, 103' right of centerline, up to 49' AGL/474' MSL. **Rwy 23**, tree, flag pole, and transmission towers beginning 1594' from DER, 82' right of centerline, up to 125' AGL/545' MSL. Transmission towers beginning 2627' from DER, 414' left of centerline up to 125' AGL/524' MSL. **Rwy 10L**, trees beginning 230' from DER, 494' left of centerline, up to 57' AGL/486' MSL. Trees beginning 1172' from DER, 591' right of centerline, up to 37' AGL/488' MSL. **Rwy 10R**, rod on electrical equipment 40' from DER, 66' left of centerline, 7' AGL/426' MSL. Trees beginning 2107' from DER, 199' right of centerline, up to 69' AGL/488' MSL. **Rwy 28L**, bushes and poles beginning 35' from DER, 160' right of centerline, up to 37' AGL/451' MSL. Trees beginning 1008' from DER, 7' left of centerline, up to 37' AGL/451' MSL. **Rwy 28R**, bushes, trees, and poles beginning 34' from DER, 162' left of centerline, up to 38' AGL/451' MSL. Trees, signs, and poles beginning 768' from DER, 98' right of centerline, up to 67' AGL/488' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)





## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

## SAN DIEGO, CA (CON'T)

## SAN DIEGO INTL (SAN)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 8 15232 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, 400-1½ w/min. climb of 290' per NM to 900. **Rwy 27**, 400-2½ or std. w/min. climb of 353' per NM to 500.

DEPARTURE PROCEDURE: **Rwy 9**, climb heading 095° to 900, then climbing left turn direct MZB VORTAC. Thence ...

**Rwy 27**, climb heading 275° to 900, then climbing right turn direct MZB VORTAC. Thence ...

...Aircraft departing MZB VORTAC R-180 CW R-360 climb on course. All others climb in MZB VORTAC holding pattern (hold West, right turn, 075° inbound) to cross MZB VORTAC at or above 2300 before proceeding on course.

NOTE: **Rwy 9**, obstruction light, sign, and trees beginning 11' from DER, 258' left of centerline, up to 38' AGL/77' MSL. Antenna on building, pole and lighted barrier beginning 18' from DER, 5' right of centerline, up to 35' AGL/50' MSL. Obstruction light on localizer 272' from DER, on centerline, 19' AGL/38' MSL. Vent on building, multiple buildings, and trees beginning 741' from DER, 104' right of centerline, up to 173' AGL/317' MSL. Electrical system, pole, multiple antennas on lighted buildings, and trees beginning 792' from DER, 135' left of centerline, up to 66' AGL/138' MSL. Buildings and trees beginning 5834' from DER, 19' right of centerline, up to 280' AGL/394' MSL. Lighted stack, poles, and trees beginning 1 NM from DER, 492' left of centerline, up to 132' AGL/419' MSL. **Rwy 27**, fence 89' from DER, 337' left of centerline, 6' AGL/16' MSL. Lt pole 192' from DER, 347' right of centerline, 17' AGL/30' MSL. Ol on DME 284' from DER, 317' left of centerline, 18' AGL/28' MSL. Tree 754' from DER, 156' right of centerline, 44' AGL/54' MSL. Tree 1021' from DER, 620' right of centerline, 58' AGL/71' MSL. Ol on flagpole 2515' from DER, 707' left of centerline, 98' AGL/118' MSL. Tree 2594' from DER, 353' right of centerline, 90' AGL/107' MSL. Tree 3197' from DER, 410' right of centerline, 91' AGL/111' MSL. Tree 3316' from DER, 130' right of centerline, 100' AGL/120' MSL. Tree 3494' from DER, 947' right of centerline, 129' AGL/169' MSL. Tower 3675' from DER, 14' right of centerline, 60' AGL/115' MSL. Tree 5046' from DER, 1446' left of centerline, 96' AGL/235' MSL. Tree 5416' from DER, 95' right of centerline, 44' AGL/184' MSL. Tree 5448' from DER, 386' left of centerline, 67' AGL/213' MSL. Tree 5703' from DER, 272' right of centerline, 65 AGL/208' MSL. Tree 5728' from DER, 479' right of centerline, 47' AGL/188' MSL. Tree 5914' from DER, 294' left of centerline, 54' AGL/218' MSL. Tree 5973' from DER, 7' left of centerline, 58' AGL/218' MSL. Building 6311' from DER, 2084' right of centerline, 23' AGL/178' MSL. Building light 6555' from DER, 257' right of centerline, 40' AGL/238' MSL.

DIVERSE VECTOR AREA (RADAR  
VECTORS)

AMDT 1 15232 (FAA)

**Rwy 27**, headings as assigned by ATC; requires minimum climb of 360' per NM to 800.

## SAN DIEGO/EL CAJON, CA

## GILLESPIE FIELD (SEE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5 11041 (FAA)

TAKEOFF MINIMUMS: **Rwy 9L**, 900-2 ¾ w/min. climb of 400' per NM to 3600. **Rwy 9R**, 900-2 ¾ w/min. climb of 405' per NM to 3600. **Rwy 17**, std. w/min. climb of 465' per NM to 1900. **Rwy 27L**, std. w/min. climb of 495' per NM to 3600 or 2500-2½ w/min. climb of 411' per NM to 3600. **Rwy 27R**, std. w/min. climb of 605' per NM to 3600 or 2500-2 w/min. climb of 435' per NM to 3600. **Rwy 35**, std. w/min. climb of 460' per NM to 2200.

DEPARTURE PROCEDURE: **Rwys 9L, 9R, 27L, 27R**, climbing right turn on heading 165° and MZB R-076 to MZB VORTAC. **Rwy 17**, climb on heading 165° and MZB R-076 to MZB VORTAC. **Rwy 35**, climbing left turn on heading 165° and MZB R-076 to MZB VORTAC.

NOTE: **Rwy 9L**, rising terrain beginning 11' from DER, 202' left of centerline, up to 398' MSL. Vehicle on road beginning 604' from DER, 3' right of centerline, up to 17' AGL/450' MSL. Sign 739' from DER, 442' right of centerline, 40' AGL/448' MSL. Bridge 784' from DER, on centerline, 10' AGL/408' MSL. Building 916' from DER, 355' left of centerline, 40' AGL/448' MSL. Trees beginning 940' from DER, 28' left of centerline, up to 100' AGL/557' MSL. Poles beginning 1101' from DER, 153' right of centerline, 40' AGL/455' MSL. Poles beginning 1173' from DER, 314' left of centerline, up to 42' AGL/462' MSL. Trees beginning 1259' from DER, 66' right of centerline, up to 100' AGL/628' MSL. Building 1418' from DER, 421' left of centerline, 40' AGL/451' MSL. **Rwy 9R**, poles beginning 921' from DER, 68' right of centerline, up to 50' AGL/442' MSL. Vehicle on road beginning 1544' from DER, 404' left of centerline, up to 17' AGL/450' MSL. Sign 1679' from DER, 25' right of centerline, 40' AGL/448' MSL. Buildings beginning 1855' from DER, 772' left of centerline, up to 40' AGL/450' MSL. Trees beginning 1879' from DER, 65' left of centerline, up to 100' AGL/691' MSL. Poles beginning 2112' from DER, 263' left of centerline, up to 42' AGL/462' MSL. Trees beginning 2490' from DER, 258' right of centerline, up to 100' AGL/505' MSL. **Rwy 17**, fence 14' from DER, 42' right of centerline, 10' AGL/393' MSL. Poles beginning 50' from DER, 33' right of centerline, up to 40' AGL/428' MSL. Buildings beginning 240' from DER, 290' right of centerline, up to 70' AGL/463' MSL. Poles beginning 266' from DER, 150' left of centerline, up to 40' AGL/440' MSL. Antenna on hanger 282' from DER, 325' left of centerline, 40' AGL/421' MSL. Trees beginning 390' from DER, 377' right of centerline, up to 100' AGL/473' MSL. Buildings beginning 670' from DER, 57' left of centerline, 40' AGL/429' MSL. Trees beginning 1068' from DER, 54' left of centerline, up to 100' AGL/472' MSL. **Rwy 27L**, aircraft on taxiway 9' from DER, 195' left of centerline, 15' AGL/384' MSL. Trees beginning 1548' from DER, 700' right of centerline, up to 100' AGL/453' MSL. Trees beginning 2943' from DER, 464' left of centerline, up to 60' AGL/470' MSL. **Rwy 27R**, trees beginning 179' from DER, 54' right of centerline, up to 100' AGL/453' MSL. Poles beginning 316' from DER, 161' right of centerline, 40' AGL/390' MSL. Railroad 511' from DER, 412' left of centerline, 23' AGL/379' MSL. Obstruction light on RR signal 799' from DER, 83' left of centerline, 30' AGL/390' MSL. Trees beginning 2069' from DER, 71' left of centerline, up to 100' AGL/470' MSL. Pole 2142' from DER, 95' left of centerline, 30' AGL/420' MSL. **Rwy 35**, poles beginning 50' from DER, 29' right of centerline, up to 50' AGL/431' MSL. Buildings beginning 61' from DER, 134' right of centerline, up to 10' AGL/388' MSL. Trees beginning 179' from DER, 67' right of centerline, up to 100' AGL/447' MSL. Pole 593' from DER, 336' left of centerline, 35' AGL/396' MSL. Trees beginning 670' from DER, 118' left of centerline, up to 100' AGL/439' MSL.

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## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



## DIVERSE VECTOR AREA (RADAR VECTORS)



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



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## SAN DIEGO/EL CAJON, CA (CON'T)

GILLESPIE FIELD (SEE) (CON'T)

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 14289 (FAA)

**Rwy 27L**, heading as assigned by ATC; requires minimum climb of 320' per NM to 1200. **Rwy 27R**, heading as assigned by ATC; requires minimum climb of 420' per NM to 1200. **Rwy 35**, heading as assigned by ATC; requires minimum climb of 400' per NM to 1600.

## SAN LUIS OBISPO, CA

SAN LUIS COUNTY RGNL(SBP)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 6 92289 (FAA)

TAKEOFF MINIMUMS: **Rwys 7, 25, NA**. **Rwy 11**, 1800-2 or std. with a min. climb of 320' per NM to 2300. **Rwy 29**, 1200-2 or std. with a min. climb of 390' per NM to 1700.

DEPARTURE PROCEDURE: **Rwy 11**, climb runway heading to 900, then climbing right turn direct MQO VORTAC. **Rwy 29**, climb via runway heading and MQO R-050 to MQO VORTAC. **All aircraft** departing on MQO R-130 CW R-320 climb on course. All others continue climbing in MQO holding pattern (SE, left turns, 306° inbound) to cross MQO VORTAC at or above 4000.

## SAN NICOLAS ISLAND NOLF (KNSI)

SAN NICOLAS ISLAND, CA

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

15288

DEPARTURE PROCEDURE:

**Rwy 12**: Diverse departures authorized 301° to 121° CW.

**Rwy 30**: Diverse departures authorized 301° to 121° CW.

TAKE-OFF OBSTACLES: **Rwy 12**, terrain 63' from DER, 517' right of centerline, 504' MSL. Terrain 50' from DER, 500' right of centerline, 503' MSL. **Rwy 30**, localizer antenna 51' from DER, 3' right of centerline, 8' AGL/491' MSL.

## SANTA ANA, CA

JOHN WAYNE AIRPORT-ORANGE

COUNTY (SNA)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 6 14261 (FAA)

DEPARTURE PROCEDURE: **Rwys 2L, 2R**, climbing left turn direct SLI VORTAC. **Rwys 20L, 20R**, climbing right turn direct SLI VORTAC. **All aircraft** climb in SLI holding pattern (hold S, left turns, 351° inbound) to cross SLI VORTAC at or above MEA for direction of flight before proceeding on course.

NOTE: **Rwy 2L**, pole and trees beginning 94' from DER, 490' left of centerline, up to 26' AGL/63' MSL. Navaid 497' from DER, 625' right of centerline, 19' AGL/55' MSL. Trees beginning 970' from DER, 608' left of centerline, up to 90' AGL/127' MSL. **Rwy 2R**, navaid 497' from DER, 125' right of centerline, 19' AGL/55' MSL. Pole 1104' from DER, 307' right of centerline, 33' AGL/68' MSL. Building 1681' from DER, 671' right of centerline, 49' AGL/87' MSL. Tree 1745' from DER, 309' right of centerline, 52' AGL/85' MSL. **Rwy 20R**, pole and trees beginning 204' from DER, 490' right of centerline, up to 38' AGL/91' MSL. Wsk on hangar 536' from DER, 605' left of centerline, 40' AGL/92' MSL. Poles and trees beginning 808' from DER, 489' right of centerline, up to 58' AGL/108' MSL. Tree 1574' from DER, 765' left of centerline, 60' AGL/113' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 14289 (FAA)

**Rwys 2L, 2R**, headings as assigned by ATC. **Rwy 20L**, headings as assigned by ATC; requires minimum climb of 260' per NM to 1300. **Rwy 20R**, headings as assigned by ATC; requires minimum climb of 270' per NM to 1300.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)





**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****SANTA BARBARA, CA****SANTA BARBARA MUNI (SBA)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES****AMDT 7A 11321 (FAA)**

**TAKEOFF MINIMUMS:** **Rwy 7**, std. w/min. climb of 334' per NM to 1200, or 1900-2½ for climb in visual conditions. **Rwys 33L,33R** NA-ATC.

**DEPARTURE PROCEDURE:** **Rwy 7**, climbing right turn via heading 170°, thence..., or for climb in visual conditions: cross Santa Barbara Muni Airport southbound at or above 1900, thence...**Rwys 15L, 15R**, climb via heading 152°, thence...**Rwy 25**, climbing left turn via heading 155°, thence...

...then via RZS R-185 to GOLET INT, climb in GOLET INT holding pattern (SE, right turns, 307° inbound), to cross GOLET INT at or above MEA for route of flight, before proceeding on course.

**NOTE:** **Rwy 7**, obstruction light on DME antenna, road and numerous trees beginning 350' from DER, 101' right of centerline, up to 55' AGL/74' MSL. Antennas, poles, tower, and numerous trees beginning 194' from DER, 11' left of centerline, up to 79' AGL/98' MSL. Temporary crane 1.19 NM from DER, 1800' left of centerline, 220' AGL/260' MSL. **Rwy 15L**, numerous trees beginning 1242' from DER, 119' right of centerline, up to 100' AGL/159' MSL. **Rwy 15R**, sign and numerous trees beginning 29' from DER, 94' right of centerline, up to 100' AGL/159' MSL. Tree 1325' from DER, 243' left of centerline, 19' AGL/59' MSL. **Rwy 25**, trees beginning 1999' from DER, 793' right of centerline, up to 67' AGL/86' MSL.

**DIVERSE VECTOR AREA (RADAR VECTORS)****AMDT 1 16147 (FAA)**

**Rwy 7**, heading as assigned by ATC; requires minimum climb of 270' per NM to 1100. **Rwy 15L/R**, heading as assigned by ATC. **Rwy 25**, heading as assigned by ATC; requires minimum climb of 500' per NM to 4600.

**SANTA MARIA, CA****SANTA MARIA PUB/CAPT G ALLAN****HANCOCK FLD (SMX)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES****AMDT 6 12124 (FAA)**

**TAKEOFF MINIMUMS:** **Rwy 20**, NA-obstacles. **Rwy 12**, 400-2½ w/min. climb of 287' per NM to 1500 or std. w/min. climb of 388' per NM to 1200.

**DEPARTURE PROCEDURE:** **Rwy 2**, climbing left turn; **Rwy 12**, climbing left turn (do not exceed 230 KIAS until established northwest bound to GLJ VOR). **Rwy 30**, climb heading 294°.

All aircraft: climb direct GLJ VOR, then continue climb to airway MEA via GLJ R-300 to intercept MQO R-137 to MQO VORTAC. Cross MQO VORTAC at or above MEA/MCA for assigned route of flight.

**NOTE:** **Rwy 2**, trees beginning 541' from DER, 153' right of centerline, up to 108' AGL/332' MSL. Tree 1018' from DER, 246' left of centerline, 34' AGL/254' MSL. **Rwy 12**, trees beginning 988' from DER, 271' right of centerline, up to 83' AGL/402' MSL. Trees beginning 54' from DER, 277' left of centerline, up to 84' AGL/409' MSL.

**SANTA MONICA, CA****SANTA MONICA MUNI (SMO)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES****AMDT 6 06159 (FAA)**

**TAKEOFF MINIMUMS:** **Rwy 3**, std. w/min. climb of 325' per NM to 1100, or 1200-3 for climb in visual conditions.

**Rwy 21**, std. w/min. climb of 215' per NM to 4000, or 1200-3 for climb in visual conditions.

**DEPARTURE PROCEDURE:** **Rwy 3**, climbing right turn to 5000 via SMO R-210 and LAX R-276 to SADDE INT, or for climb in visual conditions: cross SMO VOR/DME at or above 1200 then continue climb to 5000 via SMO R-210 and LAX R-276 to SADDE INT. **Rwy 21**, climb to 5000 via SMO R-210 and LAX R-276 to SADDE INT, or for climb in visual conditions: cross SMO VOR/DME at or above 1200, then climb to 5000 via SMO R-210 and LAX R-276 to SADDE INT.

**NOTE:** **Rwy 3**, multiple signs and trees beginning 19' from DER, 300' right of centerline, up to 36' AGL/211' MSL, tower 5488' from departure end of run way, 1902' right of centerline, 150' AGL/325' MSL, light standard 19' from DER, 176' right of centerline, 6' AGL/181' MSL, multiple trees beginning 325' from DER, 227' left of centerline, up to 34' AGL/209' MSL, sign 56' from DER, 185' left of centerline, 6' AGL/181' MSL. **Rwy 21**, multiple trees and poles beginning 140' from DER, 247' right of centerline, up to 81' AGL/196' MSL, antenna on building 280' from DER, 486' right of centerline, 35' AGL/150' MSL, VOR 101' from DER, 255' left of centerline, 7' AGL/122' MSL.

**DIVERSE VECTOR AREA (RADAR VECTORS)****AMDT 1 16091 (FAA)**

**Rwy 3**, heading as assigned by ATC; requires minimum climb of 330' per NM to 1100. **Rwy 21**, heading as assigned by ATC; requires minimum climb of 350' per NM to 3900.

**SANTA YNEZ, CA****SANTA YNEZ (IZA)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES****AMDT 2 16035 (FAA)**

**TAKEOFF MINIMUMS:** **Rwy 8**, 500-2½ w/min. climb of 251' per NM to 1700 or std. w/min. climb of 317' per NM to 1300. **Rwy 26**, 300-2 or std. w/min. climb of 226' per NM to 1100.

**DEPARTURE PROCEDURE:** **Rwy 8**, climbing left turn heading 260° to 6000, intercept GVO VORTAC R-307 to ORCUT INT/MQO 30.00 DME. Do not exceed 150 KIAS until established on GVO VORTAC R-307. **Rwy 26**, climb heading 264° to 6000, intercept GVO VORTAC R-307 to ORCUT INT/MQO 30.00 DME.

**NOTE:** **Rwy 8**, sign 23' from DER, 81' left of centerline, 28' AGL/675' MSL. Building 384' from DER, 240' left of centerline, 7' AGL/684' MSL. Tree 973' from DER, 592' right of centerline, 57' AGL/704' MSL. **Rwy 26**, buildings and hangars beginning 9' from DER, 330' right of centerline, up to 27' AGL/693' MSL. Tree 299' from DER, 415' right of centerline, 24' AGL/664' MSL. Fence 315' from DER, 407' left of centerline, 2' AGL/666' MSL. Building 353' from DER, 277' right of centerline, 20' AGL/684' MSL. Trees 391' from DER, 233' left of centerline, 56' AGL/696' MSL. Trees 435' from DER, 305' right of centerline, up to 58' AGL/698' MSL. Fence 749' from DER, 273' right of centerline, 7' AGL/678' MSL. Tree 859' from DER, 427' right of centerline, 54' AGL/688' MSL. Tree 1271' from DER, 296' left of centerline, 47' AGL/687' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND****DIVERSE VECTOR AREA (RADAR VECTORS)**



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



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## SHAFTER, CA

### SHAFTER-MINTER FIELD (MIT)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 13122 (FAA)

DEPARTURE PROCEDURE: **Rwys 12, 17, 26**, climbing right turn heading 300° to 4000. Thence ... **Rwys 8, 30, 35**, climbing left turn heading 240° to 4000. Thence ... Westbound aircraft intercept V248 until reaching 4000, then proceed on course. Eastbound aircraft intercept V248 upon reaching 4000 turn right direct EHF VORTAC, then proceed on course.

NOTE: **Rwy 8**, vehicles on road beginning 41' from DER, 7' left of centerline, up to 15' AGL/442' MSL.

**Rwy 12**, windsock 504' from DER, 397' left of centerline, 26' AGL/439' MSL. Trees beginning 2476' from DER, 344' left of centerline, up to 75' AGL/488' MSL. Trees beginning 862' from DER, 378' right of centerline, up to 31' AGL/441' MSL. **Rwy 17**, vehicles on road 489' from DER, left and right of centerline, 15' AGL/429' MSL. Tree 1150' from DER, 724' left of centerline, 51' AGL/463' MSL. Windsock 1340' from DER, 43' right of centerline, 46' AGL/455' MSL. **Rwy 30**, vehicles on road 146' from DER, 273' left of centerline, 10' AGL/420' MSL. **Rwy 35**, vehicles on road 461' from DER, 86' right of centerline to 386' right of centerline, 15' AGL/442' MSL.

## TORRANCE, CA

### ZAMPERINI FIELD (TOA)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1A 10210 (FAA)

TAKEOFF MINIMUMS: **Rwy 11L**, 400-2 or std. w/ min. climb of 325' per NM to 600. **Rwy 11R**, 400-2½ or std. with a min. climb of 325' per NM to 600.

DEPARTURE PROCEDURE: **Rwys 29L, 29R**, climb runway heading. **Rwys 11L, 11R**, climbing left turn to heading 290°. Both departures climb to 3000, intercept LAX R-170 to LIMBO Int.

## TUSI AHP (KHGT),

### HUNTER LIGGETT, CA

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3, 08269

Helicopter use only. Climb on a heading between 010° CW to 190° from heliport (or a minimum climb rate of 530' per NM to 7800 for all other courses).

## TWENTYNINE PALMS, CA

### TWENTYNINE PALMS (TNP)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 00279 (FAA)

TAKEOFF MINIMUMS: **Rwy 17, NA. Rwys 8, 26, 35**, std. with a min. climb of 280' per NM to 5500.

DEPARTURE PROCEDURE: **Rwys 8, 26, 35**, turn right direct TNP VORTAC. Eastbound on V264 continue climb on course. All others climb in TNP holding pattern (E, left turns, 255° inbound) to cross TNP VORTAC at or above 6000 before proceeding on course. Northeast bound on V514-538 cross TNP VORTAC at or above 7900.

## TWENTYNINE PALMS SELF (NXP)

### TWENTYNINE PALMS, CA

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

07354

Diverse departure not authorized.

## UPLAND, CA

### CABLE (CCB)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 10210 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, 300-1½ or std. with a min. climb of 240' per NM to 1900.

DEPARTURE PROCEDURE: **Rwy 6**, climbing right turn.

**Rwy 24**, climbing left turn. **All aircraft** climb direct PDZ VORTAC and hold (East, right turns, 258°, inbound), continue climb-in-hold to MEA for route of flight.

NOTE: **Rwy 24**, sign, 45' from DER, 96' left of centerline, 8' AGL/1396' MSL. Trees beginning 250' from DER, 417' right of centerline, up to 30' AGL/1429' MSL. **Rwy 6**, trees beginning 14' from DER, 78' left of centerline, up to 30' AGL/1669' MSL. Sign 27' from DER, 98' right of centerline, 8' AGL/1448' MSL. Sign 29' from DER, 102' left of centerline, 8' AGL/1451' MSL. Pole 109' from DER, 221' right of centerline, 40' AGL/1470' MSL. Poles beginning 123' from DER, 178' left of centerline, up to 47' AGL/1491' MSL. Trees beginning 160' from DER, 15' right of centerline, up to 30' AGL/1506' MSL. Obstruction light on building 768' from DER, 246' left of centerline, 39' AGL/1489' MSL. Tree 2785' from DER, on centerline, 30' AGL/1524' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)





# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



16147

## VAN NUYS, CA

VAN NUYS (VNY)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5 12208 (FAA)

TAKEOFF MINIMUMS: **Rwys 16L, 16R**, std. w/ min. climb of 370' per NM to 7100. **Rwys 34L, 34R**, std. w/ min. climb of 370' per NM to 7100.DEPARTURE PROCEDURE: **Rwys 16L, 16R** - climbing left turn on heading 050° and VNY R-095 to DARTS INT, thence ...**Rwys 34L, 34R** - climbing right turn on heading 140° and VNY R-095 to DARTS INT, thence ...

... Aircraft eastbound on V186 and southeast bound on V459 climb on course, all others climb in DARTS holding Pattern (hold W, right turns, 095° inbound) to depart DARTS INT at or above 7100.

NOTE: **Rwy 16L**, light on hangar 713' from DER, 361' left of centerline, 27' AGL/798' MSL. **Rwy 16R**, hangar 209' from DER, 516' right of centerline, 15' AGL/755' MSL. Flagpole 570' from DER, 549' right of centerline, 21' AGL/761' MSL. Building 941' from DER, 599' left of centerline, 28' AGL/774' MSL. Trees beginning 1129' from DER, left and right of centerline, up to 81' AGL/821' MSL. **Rwy 34L**, blast fence 169' from DER, 405' left of centerline, 10' AGL/812' MSL. Obstruction light on blast fence, 241' from DER, 195' left of centerline, 17' AGL/819' MSL. Multiple trees beginning 325' from DER, 549' right of centerline, up to 91' AGL/921' MSL. Train 305' from DER, 369' right of centerline, 23' AGL/832' MSL. Building 424' from DER, 589' right of centerline, 29' AGL/831' MSL. Antenna on building 449' from DER 462' left of centerline, 15' AGL/817' MSL. Pole 1376' from DER, 779' left of centerline, 68' AGL/870' MSL. Trees beginning 828' from DER, 15' left of centerline, 78' AGL/907' MSL. **Rwy 34R**, train 305' from DER, 5' left of centerline, 23' AGL/832' MSL. Building 424' from DER, 214' right of centerline, 32' AGL/831' MSL. Trees beginning 324' from DER, left and right of centerline, up to 91' AGL/921' MSL.

## VANDENBERG AFB (KVBG)

LOMPOC, CA

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
10042**Rwy 12**: 6500-3 or standard with a minimum climb rate of 300'/NM to 8800, cross DER at or above 35' AGL/404' MSL.**Rwy 30**: 6400-3 or standard with a minimum climb rate of 270'/NM to 8800, cross DER at or above 35' AGL/274' MSL.TAKEOFF OBSTACLES: **Rwy 12**: trees 40' AGL/479' MSL, 3814' from DER, 1126' right of centerline. Road with possible vehicles 10' AGL/443' MSL, 2961' from DER, 360' right of centerline. Trees 200' AGL/594' MSL, 1.3 NM from DER, 795' right of centerline. Trees 200' AGL/600' MSL, 1.1 NM from DER, 2250' right of centerline. Trees 200' AGL/604' MSL, 1.0 NM from DER, 90' right of centerline. Trees 200' AGL/600' MSL, 1.4 NM from DER, 2665' left of centerline. Trees 200' AGL/620' MSL, 6051' from DER, 2044' left of centerline. Trees 50' AGL/1375' MSL, 3.2 NM from DER, 5.0 NM left of centerline. Trees 107' AGL/546' MSL, 4548' from DER, 1479' right of centerline.**Rwy 12/30 VCOA**: For climb in Visual Conditions 2200-3, remain within 6.5 NM from airport, cross Vandenberg airport at or above 2400, then proceed as filed. Maximum airspeed 250 kts.

Note: Aircrews must notify ATC prior to executing this VCOA procedure.

## VICTORVILLE, CA

SOUTHERN CALIFORNIA LOGISTICS  
(VCV)TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 07074 (FAA)

TAKEOFF MINIMUMS: **Rwy 3**, std. w/ min. climb of 266' per NM to 3500 or 5300-3 for climb in visual conditions.DEPARTURE PROCEDURE: **Rwy 3**, climbing left turn heading 220°, thence, ...  
or for climb in visual conditions cross Southern California Logistics Airport at or above 8000 MSL before proceeding on course. **Rwys 17, 21**, climbing right turn heading 325°, thence, ...**Rwy 35**, climbing left turn heading 220°, thence, ...

... All aircraft climb via VCV VOR/DME R-269 to ETHER INT. Continue climb in ETHER holding pattern (NE PMD VORTAC, left turn, 247° inbound) to MEA for direction of flight.

NOTE: **Rwy 3**, pole 408' from DER, 511' right of centerline, 29' AGL/2873' MSL. Terrain beginning 153' from DER, 41' right of centerline, up to 3196' MSL. Terrain beginning 17' from DER, 104' left of centerline, up to 2855' MSL. Tree 2.1 NM from DER, 3735' right of centerline, 50' AGL/3269' MSL. **Rwy 17**, sign 248' from DER, 277' left of centerline, 14' AGL/2896' MSL. Antenna on building 701' from DER, 203' left of centerline, 20' AGL/2902' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

